



California's Distribution Resources Plans



Microgrids

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Distributed Resources Plan: Microgrid Project Goal

- Develop a demonstration project where the Utility would serve as a distribution system operator of a microgrid where DERs serve a significant portion of customer load and reliability services.





Proposed Microgrid Demonstration Projects

- **PG&E: Angel Island**
 - Replaces traditional “wires” solution for reliability needs
 - Interest by State Park for DER on site
- **SCE: Residential site adjacent to UC Irvine**
 - Includes the area that hosted the Irving Smart Grid Demonstration (ISGD) project
 - Customers could be interested in participating in a new demonstration project
- **SDG&E: Borrego Springs Microgrid**
 - Fed by a single transmission line
 - High concentration of solar generation





Project Status

- **Angel Island (PG&E)**
 - No existing resources can be leveraged
 - Estimated cost of \$1.75 million + DER Procurement Cost
- **Residential site adjacent to UC Irvine (SCE)**
 - Existing resources (PV, storage) from ISGD can be leveraged
 - Significant equipment is required (e.g., telecommunication and protection equipment)
 - Estimated cost of \$10.2 million + DER Procurement Cost
- **Borrego Springs Microgrid (SDG&E)**
 - Microgrid is operational
 - High concentration of solar generation
 - Some energy storage is installed
 - Estimated cost of \$500,000





Formal proceeding documents are found using the Rulemaking number R.14-08-013

Other documents, including workshop presentations, and other background papers are on the CPUC web site:

<http://www.cpuc.ca.gov/General.aspx?id=5071>

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